User Manual

Waterproof Weighing Indicator

GTW

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Table of Contents

INSTRUCTIONS FOR USE 2
PREPARING TO USE THE SCALE 2
CHAPTER 1 INTRODUCTION 4
1-1 FEATURES AND SPECIFICATIONS 4
1-2 APPEARANCE 5
1-3 DISPLAY DESCRIPTION 6
1-4 ERROR MESSAGES 6
1-5 KEYPAD FUNCTIONS DESCRIPTION 7
1-6 POWER DESCRIPTION 7
CHAPTER 2 GENERAL OPERATION DESCRIPTION 8
2-1 BACKLIGHT FUNCTION 8
2-2 WEIGHING MODE 8
2-2-1 Units Selection 8
2-2-2 Check Weighing Mode 8
2-2-3 Totalizing 10
2-2-4 Zero Function 11
2-2-5 Tare Function 11
2-3 COUNTING FUNCTION 12
2-3-1 Sampling 12
2-3-2 Check Weighing 12
2-3-3 Totalizing 12
CHAPTER 3 GENERAL FUNCTION SETTING 13
3-1 F 4 ⇒ CHECK WEIGHING CONFIGURATIONS 14
3-2 F 5 ⇒ RS-232 INTERFACE OUTPUT SETTING 15
3-3 F 6 ⇒ EXIT FUNCTION SETTING MODE 21
3-4 F 9 ⇒ INTERNAL VALUE DISPLAY MODE 21
3-5 F 10 ⇒ G VALUE CALIBRATION 22
3-6 F 11 ⇒ ID CODE SETTING 23
3-7 F 12 ⇒ PRINT KEY ( ) FUNCTION SETTING 24
3-8 F 14 ⇒ PRINTING ORDERS WHEN F5 IS SET AS rnP6 OR rnP 7 25
CHAPTER 4 WIRELESS CONNECTION INSTRUCTION 27
APPENDIX 1 RS-232 WIRING INSTRUCTION 32
APPENDIX 2 7-SEGMENT DISPLAY CHARACTERS 33

Thank for your purchasing of our EXCELL Weighing Scale. To guide you to use our product correctly, please read this User Manual carefully to extend the life of machine and to avoid error.

Instructions for Use

1. Please keep scale in a cool and dry place. Do not store under high temperatures.
2. Please keep the scale clean and free from insect infestation.
3. Avoid impacting with other items or overloaded with excessively heavy weights (The load must not exceed the maximum capacity of the scale).
4. If the scale is not going to be used for some time, please clean it and store it in a plastic bag in dry condition. A desiccant sachet may be included to prevent moisture from building up.
5. Do not mix different types of dry battery or mix used dry batteries with new dry batteries.
6. Any suggestion is warmly welcome.

Preparing to Use the Scale

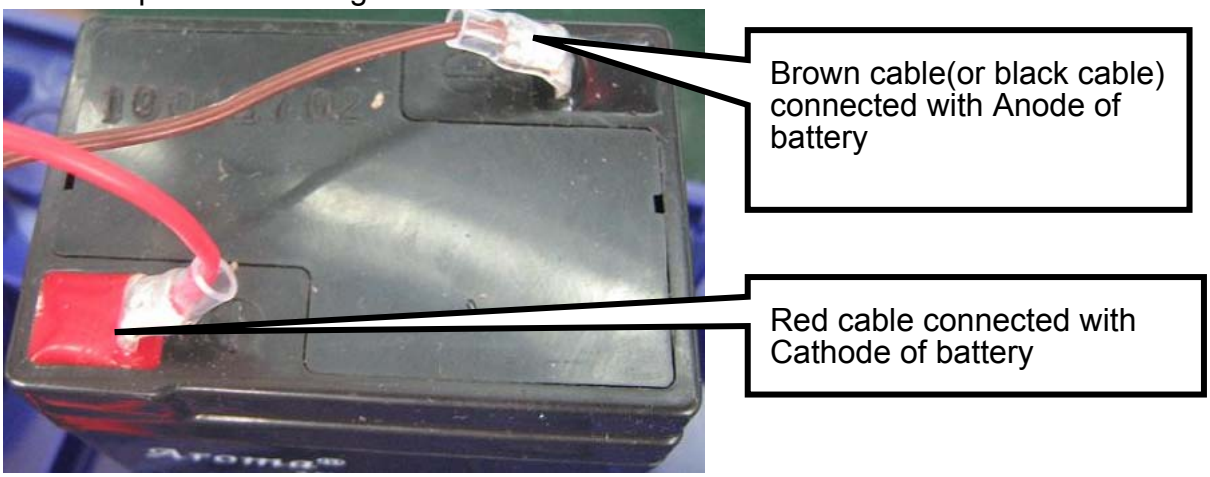
1. Locate the scale on a firm level surface free from vibrations for accurate weight readings. Adjust the four leveling feet to centre the leveling bubble on the scale.
2. Avoid hot sunshine directly on the scale or near the exhaust port of ventilating system.
3. Please use a separate power source plug, to avoid the disturbance of other electric appliance.
4. There should be no weight on the scale when power is turned on.
5. Commodity should be placed at the centre of platter when being weighed, and its size should not exceed the dimension of the platter.
6. Please warm the scale 15 ~ 20 minutes before using.
7. Please note that when symbol appears on the screen, the scale needs to be recharged.
8. Introduction of Storage Battery

Due to the storage battery adopt the advanced free-maintaining technique, customers need not to replenish electrolyte.
The scale should be recharged every 3 months to prevent failure of the internal rechargeable battery.

1. The battery should be charged for 8~10 hours.
2. The temperature of battery should below 45℃.

Maintaining

1. Please do not discharge with over-current when using the battery. Please charge the battery after discharging current.
2. Please take down the battery when the scale is not used for a long time or break the connection of cathode.
3. Do not short the battery terminals to check whether there is current. Please check whether the connection point is firm to guarantee good connection.
4. The battery should be replaced by specialized person. **No reverse-battery or the product will be damaged.**
   a) Anode of battery should be connected with Anode of product battery（usually red cable）
   b) Cathode of battery should be connected with Cathode of product battery (usually brown cable or black cable)
   c) See the picture following



Safety warnings

1. The electrolyte of battery is caustic which causes metal, cotton, etc to corrode.
2. The hydrogen will be resolved when using or charging the battery and it will cause explosion when approaches fire.

Chapter 1 Introduction

1-1 Features and Specifications

Features:

- IP 68: mist-proof, waterproof and dustproof
- Up to 1/30,000 display resolution
- LCD display (Weight-6 digits); Full range tare; Auto zero tracking; Pre-tare
- High Speed 24bits AD; Display reading speed faster
- Faster weighing stability
- Zero key and Tare key react faster
- Preset weight or quantity; Weight accumulation
- Simple counting; Gross/Net indication; Hold function; Check mode Lo / Hi / OK
- Weight and quantity over-limit warning
- Pre-tare function
- Kilogram (kg) and pound (lb) weighing modes
- Stable sampling range setting function
- Built-in rechargeable battery
- Low power indication and auto power off
- U shape stand or Sleeve connecting stand selectable.
- RS-232 data-transfer interface

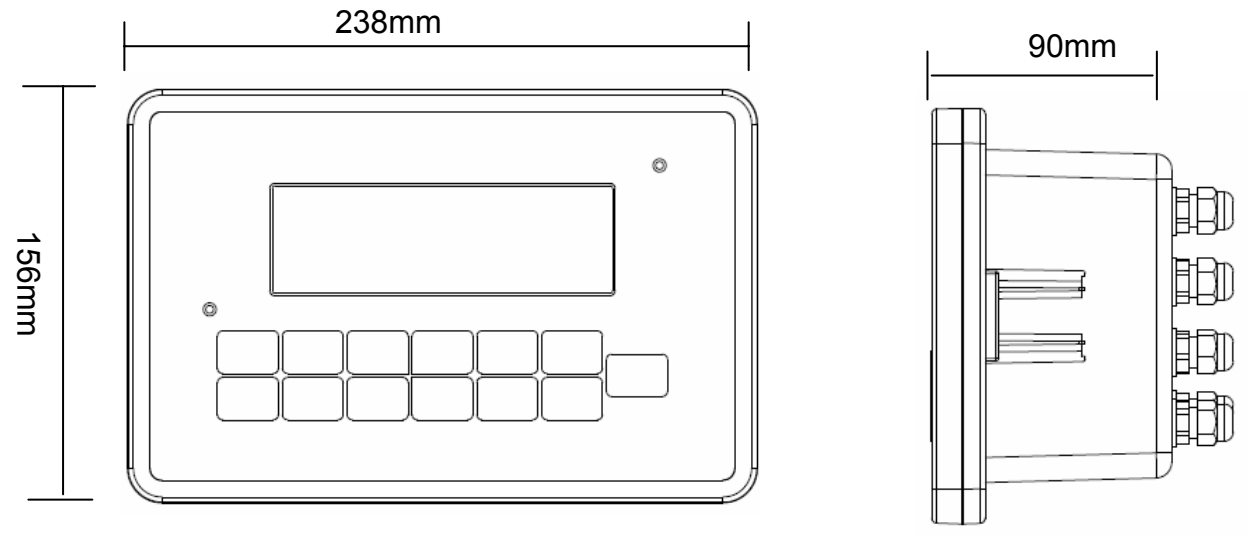
Options:

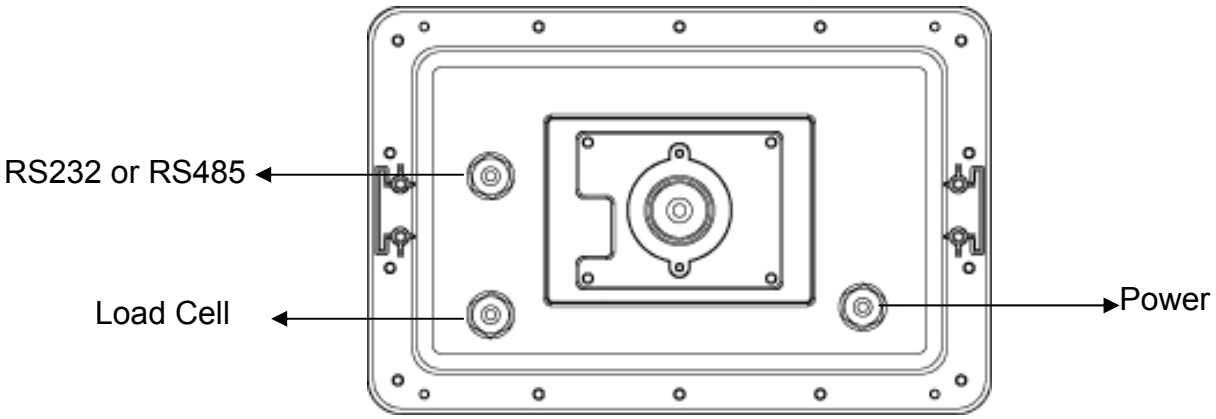
- Wireless for distance 100M available (SPP mode supported)
- Relay output (3 sets relay output)
- 1/30,000 with temperature compensation component more accurate and stable

Specifications:

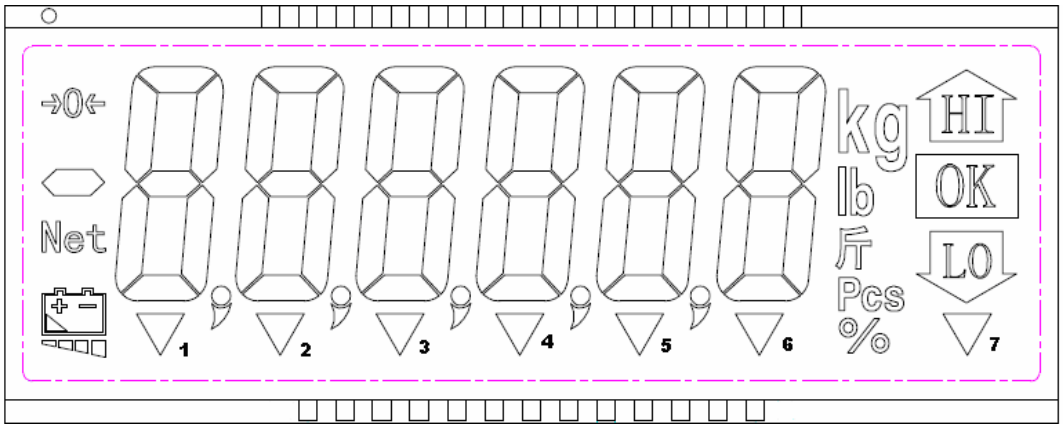
Operating Temperature: -10°C ~ +40°C
Dimensions: 238 x 156 x 90mm (W x H x D)
Display: LCD, 6 Digits, 25 mm (Height), LED backlight

1-2 Appearance





1-3 Display Description



HI	:	High limit value
OK	:	OK value (The value between HI and LO limit value)
LO	:	Low limit value
→0←	:	“Zero” indication
Net	:	“Net weight” indication
	:	“Low battery power” indication
▽1	:	“Stable” indication
▽2	:	“Pre-tare mode” indication
▽3	:	“Accumulation mode” indication
▽5	:	“Samples insufficient” indication
▽6	:	“Unit weight insufficient” indication
kg	:	“kg” unit
lb	:	“lb” unit
斤	:	No function
Pcs	:	Counting mode
%	:	Percent indication

Changes of “Range” indication mode

The indicator with 2-segment specification: ▽6 is Range 1 ▽5 is Range 2

1-4 Error Messages

OL ⇒ Weight exceed 9d of maximum capacity. (d=division)

E 1 ⇒ Zero value after power on is over +10% FS.

E 2 ⇒ Zero value after power on is less than -10% FS.

E 4 ⇒ Unstable zero return, unstable over 10 sec. Press →0← to leave E4.

E 6 ⇒ Zero is too high when calibrating. (over internal value350,000)

E 7 ⇒ Zero is too low when calibrating. (under internal value 80,000)

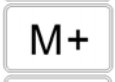
- - - - - - ⇒ If the negative weight is over 20 divisions and there is no T or PT, the display shows “- - - - - -”

1-5 Keypad Functions Description

: Press this key to power on or power off the scale

: Press this key to select the required unit from the preset units.

: Press this key to preset the weight and quantity.



: Press this key to accumulate the weight value or others.

: Press this key to tare (deduct the container weight)

: Press this key to preset tare value.

: Press this key to recall the totalization value, preset value and pre-tare value.

: Press this key to clear the totalization value, preset value and pre-tare value.

: Press this key to zero the scale.

: Press this key to print the total data and to confirm.

: Press this key to input the numbers (0 ~ 9) and to light up the backlight.

: Press this key to go into counting mode

: Press this key to sample

1-6 Power Description

Power Selection

1. 6 V / 4 Ah Rechargeable batteries
2. 110 V / 220 V ±15 % AC

Power Consumption

(Indicator + Load Cell+ no backlight)	About 25 mA
(Indicator + Load Cell+ backlight)	About 33 mA
(Indicator+ Load Cell+ Backlight+ wireless)	About 65 mA

Low Power Alarm

Please note when the ( ) symbol keeps flashing on the left down corner of the display, the batteries should be recharged.

The scale will turn off automatically after a few hours when the low battery warning symbol shows up. The scale must be fully recharged, before operating again.

Please recharge at once when the symbol shows in order to keep the weight accuracy.

Chapter 2 General Operation Description

2-1 Backlight Function

Press [^/☼] key to select the display backlight mode:

bL. Auto ⇒ "Auto Backlight" mode. When the weight is over 10d or any key is pressed, the display backlight will be switched on. When the weight returns to zero (the weight on platform is less than 10d), the display backlight will switch off after 10 seconds.

bL. on ⇒ Display backlight is on all the time.

bL. oFF ⇒ Display backlight is off.

2-2 Weighing Mode

2-2-1 Units Selection

1. After indicator is turned on, use [UNITS] key to select a unit from kg, lb, tael or viss, as the screen indicated.
2. The selected unit will be memorized when you turn the indicator off. And the memorized unit will appear after you turn on the indicator next time.

2-2-2 Check Weighing Mode

1. Preset " High limit", "Low limit" and " Beeper value" operation

Use [^/☼] and [⊙/↵] key to preset values.

For example:

Preset "Low limit" (Low limit >10d) ***e.g. Low limit = 20 kg***

Press [⊿] key — the display shows ≥0≤ - - .- - L

Press [⊙/↵] key 1 time — the display shows 0≥0≤ - .- - L

Press [^/☼] key 2 times — the display shows 0≥2≤ - .- - L

Press [⊙/↵] key 4 times — the display shows 0 2 0.00≥0≤

Preset "High limit" (High limit ≥ Low limit) ***e.g. High limit = 25 kg***

Press [⊙/↵] key 1 time — the display shows ≥0≤ - - .- - H

Press [⊙/↵] key 1 time — the display shows 0≥0≤ - .- - H

Press [^/☼] key 2 times — the display shows 0≥2≤ - .- - H

Press [⊙/↵] key 1 time — the display shows 0 2≥0≤ .- - H

Press [^/☼] key 5 times — the display shows 0 2≥5≤ .- - H

Press [⊙/↵] key 3 times — the display shows 0 2 5.00≥0≤

Preset "Beeper value" (Refer to **Note**) ***e.g. Beeper value = 22***

Press [⊙/←] key 1 time the display shows 0 - b
Press [^/☼] key 2 times the display shows 2 - b
Press [⊙/←] key 1 time the display shows 2 0 b
Press [^/☼] key 2 times the display shows 2 2 b
Press [⊙/←] key 1 times the display shows 0.000

Preset Single point (preset low limit only):

After "preset low limit" procedures is completed and the display shows 0 ---.--H, then press [☑] key again, the display shows 0.000. This means that the "preset single point" procedure is completed.

NOTE

_ _ _ X X b
A B

A Setting for the status that LCD is on and the beeper beep:
0 = when stable, the beeper beeps and LCD is on.
1 = when stable, the beeper beeps; whether stable or not, LCD is on.
2 = whether stable or not, the beeper beeps and LCD is on.
3 = open warning device: when the weight is higher than HI value and the weight is stable, LCD is on and Relay Card open.

B Setting for the beep status:
0 = No beep
1 = OK (when the weight is over Low Limit & under or equal to High Limit.), the beeper beeps.
2 = When the weight is under or equal to Low Limit & over High Limit, the beeper beeps.

Under Status in Preset Low Limit (preset single point only)
The BEEP, LCD mode should be fixed as follows:

b 2 1
When over "Low Limit", the beeper beeps and LO is off
Whether stable or not, the beeper beeps and LCD indication is on

Warning device setting
Set HI value and value of the beep, LCD mode should be fixed as follows:

_ _ _ 3 2 b
A B

When the weight equals to HI value, Relay Card open and the weight is accumulated. Press CE key to dismiss the warning sound and the range of accumulated weight is [000.000]~[999999].

Clear warning accumulation

- Press [→0←] key first and then press CE key to clear all accumulated data.
- Accumulated data is cleared automatically under following conditions
  a. when shift among weight mode, counting mode and warning accumulation mode.
  b. when shift the units
  c. turn off the scale

LCD indication:

LO OK HI
⇦⇦⇦ | ⇦⇦⇦⇦ ⇨⇨⇨⇨ | ⇨⇨⇨
10d Low Limit High Limit

◆To exit preset mode, please press UNITS key.

2. Recall Check-weighing Values

Press [⊿] key then press [→0←] key ⇒ Recall “Low limit value”

Then press [→0←] key again ⇒ Recall “High limit value”

Then press [→0←] key again ⇒ Recall “Beeper value”

Then press [→0←] key again ⇒ Back to the beginning

3. Clearing Check-weighing Values

Press [⊿] key then press [→0←] key, and then press [CE] key ⇒ Recall “Low limit value”. Then press [CE] key again ⇒ Clear “High limit value” and “Beeper value”

Press [⊿] key then press [◎/↵] key 6 times continuously ⇒ Clear all values.

2-2-3 Totalizing

1. Weight Totalizing

Place goods on the platter, after stable and press [M+] key to save the weight value. Then the display shows the total number of additions and the totalized weight value. And the (M+) indication “▼” will flash on the display. The indicator will recover to show the weight value of the goods on the platter after 3 seconds and the (M+) indication “▼” is on.

- The indicator allows the next totalizing operation, even when the weight value does not return back to zero. The [M+] key is functional, when the weight value changes by more than 10d. The indicator will save the totalized weight value after the weight is stable.
- The indicator can totalize positive or negative weight but can’t do both at the same time. The totalized weight store must be reset to zero before it is possible to select positive or negative totalizing mode.
- The totalizing function can be used up to a maximum of 9999 times before it must be reset. The totalizing display is limited to 6 digits maximum.
- When totalizing, RS-232 will also output. (Refer to F5 setting)

2. Clear Totalized Weight Values

- ♦ Press [→0←] then [CE] key to clear all totalized weight values.
- ♦ When changing between weighing and counting mode, or selecting weighing unit, the indicator will automatically clear all the totalized weight values.
- ♦ The indicators will automatically clear all the totalized weight values after turning on.

3. Recall Totalized Weight Values

Press [→0←] key to display the total number of additions and the totalized weight value. And the (M+) indication “▼” will flash on the display. The indicator will return to the weighing mode after 3 seconds.

The indicator will not display the negative sign "-" for negative totalized weight values when recalling a totalized weight value, but when printing, the negative sign "-" will be printed out (transmitted serially) for each negative weight and negative totalized weight.

2-2-4 Zero Function

Press →0← key to re-zero the display with no load on the platter. When zero is set, the (→0←) symbol will be displayed.

2-2-5 Tare Function

1. When the weight of the container is unknown **(** **)**

❶ Place the container on the platter, after stable and press key, the weight value returns to zero and net indication (Net) is on.

❷ Place goods into the container, then the indicator shows the net weight of goods.

❸ Clear tare value

When removing the container and goods, the display shows the negative weight value of the container. Then press key to clear tare value. The indicator returns to zero and net indication (Net) is on.

❹ Recall tare value

Press then key ⇒ the display shows tare value

Multiple tare operation ⇒ Users can continuously increase or decrease the tare value by pressing the key.

The total tare value (tare value + pre-set tare value) can equal the full capacity of the indicator.

2. When the weight of the container is known **(** **)**

❶ Press key and the display shows 0 - -.- - P.

Use and keys to input weight value of the container. After finishing the procedures, the net indication (Net) and pretare indication "▼" is on.

❷ Place goods into the container, then the indicator shows the net weight of goods.

❸ Clear pretare value

Press then key, and then press CE key to clear pretare value.

When the indicator returns to zero, net indication (Net) and pretare indication "▼" are off.

❹ Recall pretare value

Press then key ⇒ the display shows pretare value

In Tare mode, the Preset tare function is disabled.

The indicators with two weighing ranges can NOT pre-set the tare value larger than the first weighing range. For example: a 30 kg indicator is set by two weighing ranges. The first range is 0 to 15 kg, and the second range is 15 to 30 kg. The pre-set tare value can not be larger than 15 kg.

2-3 Counting Function

2-3-1 Sampling

❶ Press key to select sample quantity from 10, 20, 50,100 and the display shows 10, 20, 50, 100 accordingly.

❷ Select sample quantity and then place samples on the platter, and then press key, the display shows " SAMPLE".

After stable, the scale enters into counting mode and the display shows sample quantity.

♦ Sample Too Small ( ) ⇒ Sample is less than 20 divisions.

♦ Unit Weight Too Small ( ) ⇒ Unit weight is less than 0.2 division. (0.1 d for Brazil regulation)

When sampling, the above two symbols indications are on. Under such conditions, the scale can still work, but may result in lower count precision.

When using 2-segment weighing mode, the above two symbol indications change to Range 2 and Range 1 and the two symbol indications are off.

2-3-2 Check Weighing

Refer to the operation of check weighing in weighing function.

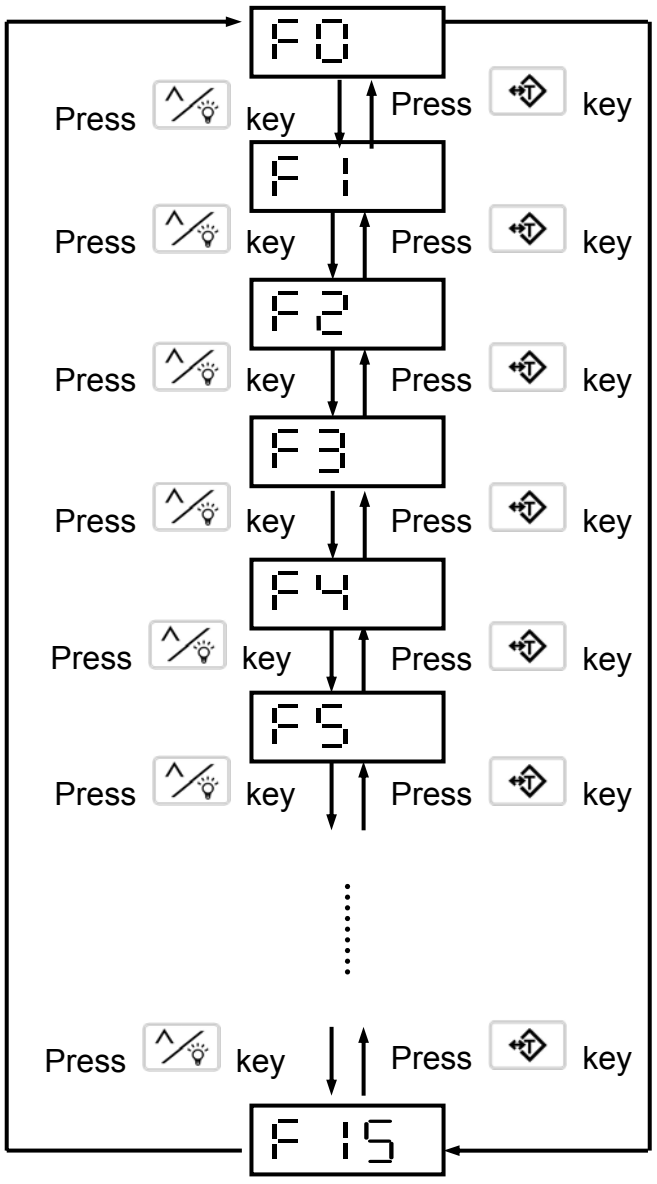
2-3-3 Totalizing

Refer to the operation of totalizing in weighing function.

Chapter 3 General Function Setting

♦ Switch on the scale. While the scale is counting down to zero, press and hold →0← key until the display shows the software program version number 020 18

Release the →0← key, the scale enters into the configuration setting mode and F0 is showed on the display.

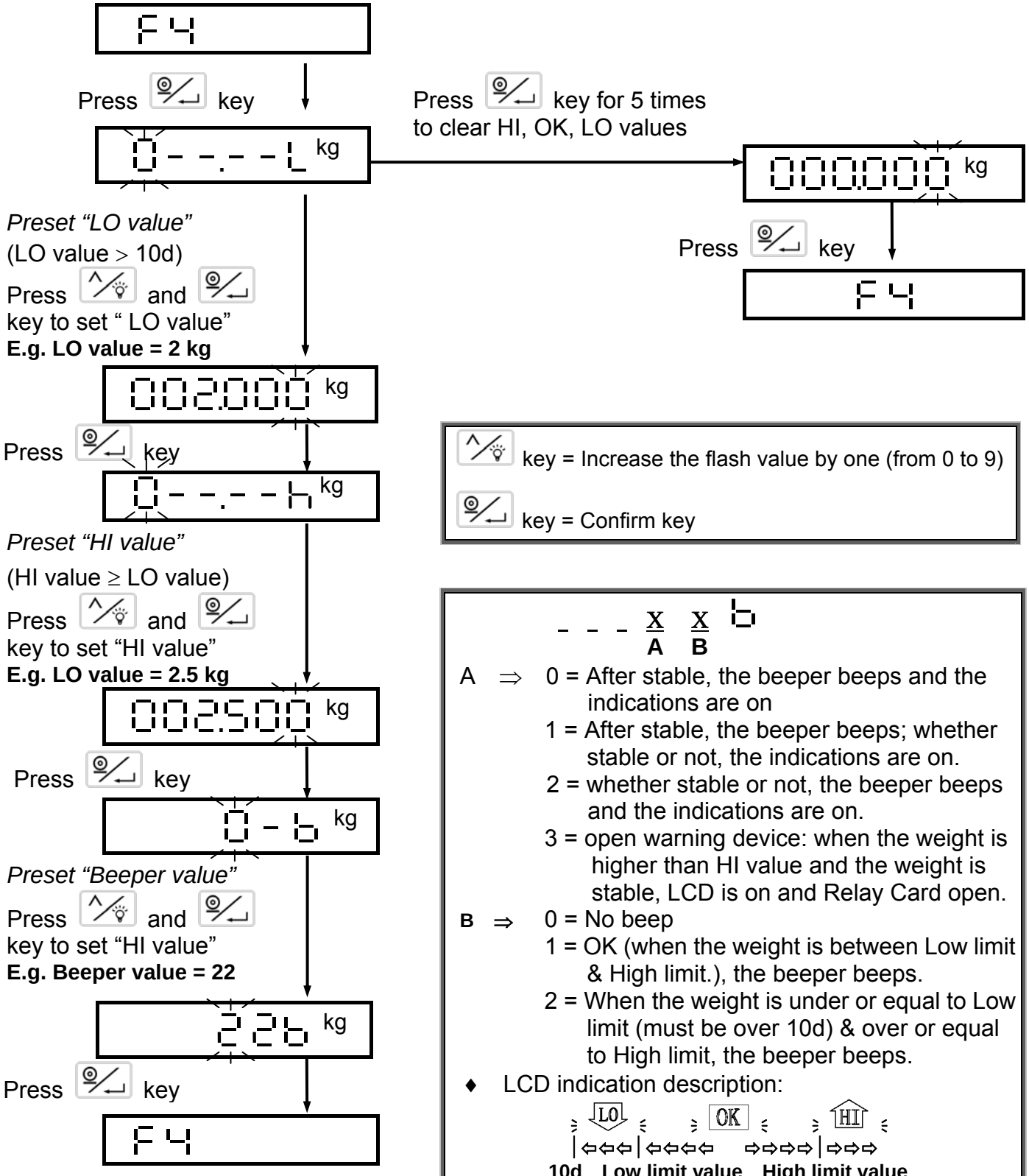


F0 ⇒ Reserved
F1 ⇒ Reserved
F2 ⇒ Reserved
F3 ⇒ Reserved
F4 ⇒ Check-weighing configurations
F5 ⇒ RS-232 Interface output Setting
F6 ⇒ Exit setting mode
F7 ⇒ Internal value display mode
F8 ⇒ Reserved
F9 ⇒ Reserved
F10 ⇒ G Value adjustment
F11 ⇒ ID code setting
F12 ⇒ Print key function setting
F13 ⇒ Reserved
F14 ⇒ Printing orders when F5 is set as rnP6 or rnP7
F15 ⇒ Reserved

3-1 F 4 ⇒ Check Weighing Configurations

♦ If hold mode is set, accessing to F 4 is denied.

Press ^/☼ or → key to select F 4 function ⇒ the display shows F 4


F 4
Press ⊙/↵ key
0 - -.- - L kg
Press ⊙/↵ key for 5 times to clear HI, OK, LO values
000.000 kg
Press ⊙/↵ key
F 4
Preset "LO value"
(LO value > 10d)
Press ^/☼ and ⊙/↵ key to set " LO value"
E.g. LO value = 2 kg
002.000 kg
Press ⊙/↵ key
0 - -.- - h kg
Preset "HI value"
(HI value ≥ LO value)
Press ^/☼ and ⊙/↵ key to set "HI value"
E.g. LO value = 2.5 kg
002.500 kg
Press ⊙/↵ key
0 - b kg
Preset "Beeper value"
Press ^/☼ and ⊙/↵ key to set "HI value"
E.g. Beeper value = 22
22 b kg
Press ⊙/↵ key
F 4

^/☼ key = Increase the flash value by one (from 0 to 9)

⊙/↵ key = Confirm key

- - - X X b
A B

A ⇒ 0 = After stable, the beeper beeps and the indications are on
1 = After stable, the beeper beeps; whether stable or not, the indications are on.
2 = whether stable or not, the beeper beeps and the indications are on.
3 = open warning device: when the weight is higher than HI value and the weight is stable, LCD is on and Relay Card open.

B ⇒ 0 = No beep
1 = OK (when the weight is between Low limit & High limit.), the beeper beeps.
2 = When the weight is under or equal to Low limit (must be over 10d) & over or equal to High limit, the beeper beeps.

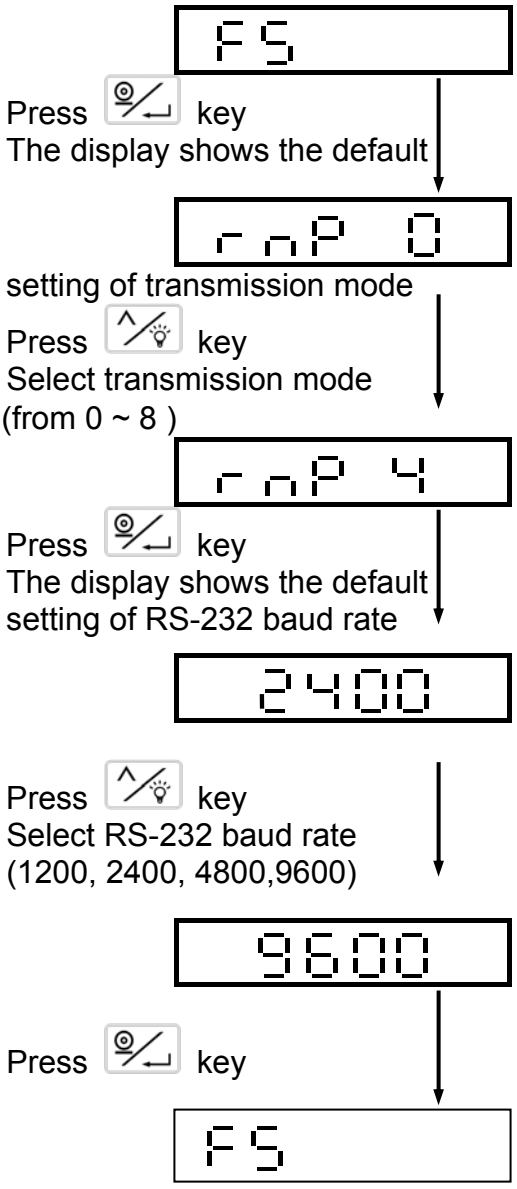
♦ LCD indication description:

10d Low limit value High limit value

3-2 FS ⇒ RS-232 Interface Output Setting

Make J1、J3 on RS232 short circuit, when connecting to computer.

Press [^/☼] or [→] key to select FS function ⇒ the display shows FS



[^/☼] key = Increase the flash value by one (from 0 to 8) or selecting baud rate from 1200, 2400,4800 and 9600(default setting).

[↵] key =Confirm key

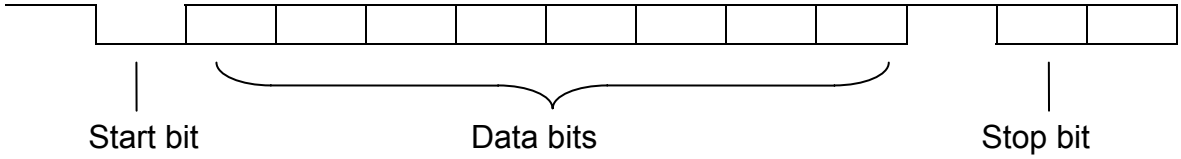
- rnP 0 ⇒ No transmission
- rnP 1 ⇒ Stable transmission *
- rnP 2 ⇒ Continuous transmission *
- rnP 3 ⇒ Press [↵] key to transmit in simple mode. *
- rnP 4 ⇒ Press [↵] key to transmit in complete mode.*
- rnP 5 ⇒ Stable transmission in totalizing mode. The format is as same as rnP 3 *
- rnP 6 ⇒ Free format. Please refer to F14.
- rnP 7 ⇒ Free format. Please refer to F14.
- rnP 8 ⇒ Press [↵] key to transmit. The format is as same as rnP 1 and rnP 2. *
- rnP 9 ⇒ Continuous transmission，specific format *
- rnP 10⇒ [M+] or [↵] key transmit specific format *

* : RS-232 is open

For Brazil approval models, if the unit weight is less than 0.1d, RS232 function close.

RS-232 Interface Format

I . Mode**:** UART Signal of EIA-RS0232 C
II . Format **:**
1. Baud rate **:** 1 200, 2 400, 4 800, 9 600 bits/second
2. Data bits **:** 8 bits
3. Parity bit **:** None
4. Stop bits **:** 1 bit
5. Code **:** ASCII (Exchange code of American standard)



RS-232 Data Format

Stable transmission (rnP 1), Continuous transmission (rnP 2),
Press key to transmit (rnP 8)

(1) gram as weight unit

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
HEAD			HEAD		,	±	DATA							UNIT	CR	LF	g

(2) kg or lb as weight unit

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
HEAD			HEAD		,	±	DATA							UNIT		CR	LF	kg/lb

HEAD1 (2 BYTES)	HEAD2 (2 BYTES)
OL - Overload , Under load	TR - TARE Mode
ST - Display is Stable	NT - NET Mode
US - Display is Unstable	GS - GROSS Mode

DATA (7 or 8 BYTE)

2B (HEX) = " **+** " (PLUS)
2D (HEX) = " **–** " (MINUS)
2E (HEX) = " **.** " (DECIMAL POINT)

UNIT (2、3 or 4 BYTE)

kg = 6B (HEX) ; 67 (HEX)
lb = 6C(HEX) ; 62 (HEX)
tl.T = 74 (HEX) ; 6C (HEX) ; 2E (HEX) ; 54 (HEX)
hkg = 68 (HEX) ; 67 (HEX)
viss = 76 (HEX) ; 69 (HEX) ; 73 (HEX) ; 73 (HEX)

Transmission examples:

Data format for ⌐ ∩ P 2 RS-232 continuous transmission are as below:

1. The gross weight (+0.876 kg) shows as below, after stable: (no tare or pre-tare mode)

S	T	,	G	S	,	+			0	.	8	7	6	k	g	0D	0A
HEAD1		,	HEAD2		,	DATA								UNIT		C	LF

2. The net weight (-1.568 lb) shows as below without weight stability: (under tare or pre-tare mode)

U	S	,	N	T	,	-			1	.	5	6	8	l	b	0D	0A
HEAD1		,	HEAD2		,	DATA								UNIT		C	LF

Press [⊙/↵] key to transmit (simple mode) r nP 3

S/N WT/UNIT (kg / lb)

- - - - - - - - - - - - - -

0001 1.0000 ☜ Press [⊙/↵] or [M+] key

0002 1.0000 ☜ Press [⊙/↵] or [M+] key

0003 1.0000 ☜ Press [⊙/↵] or [M+] key

0004 1.0000 ☜ Press [⊙/↵] or [M+] key

0005 1.0000 ☜ Press [⊙/↵] or [M+] key

- - - - - - - - - - - - - -

0005 5.0000 ☜ Press [⊙/↵] twice to print TOTAL

Press [⊙/↵] key to transmit (complete mode) r nP 4

TICKETS NO. 0001
G 1.000kg
T 0.000kg
N 1.000kg
(3 blank lines)

☜ Press [⊙/↵] or [M+] key

TICKETS NO. 0002
G 1.000kg
T 0.000kg
N 1.000kg
(3 blank lines)

☜ Press [⊙/↵] or [M+] key

TICKETS NO. 0003
G 1.000kg
T 0.000kg
N 1.000kg
(3 blank lines)

☜ Press [⊙/↵] or [M+] key

TOTAL NUMBER
OF TICKETS 0003
TOTAL
NET 3.000kg
(3 blank lines)

☜ Press [⊙/↵] twice to print TOTAL

G = GROSS T = TARE N = NET

Stable Transmission (totalizing mode) rnP 5

S/N	WT/UNIT (kg / lb)	
0001	1.0000	☜ The scale is stable
0002	1.0000	☜ The scale is stable
0003	1.0000	☜ The scale is stable
0004	1.0000	☜ The scale is stable
0005	1.0000	☜ The scale is stable
0005	5.0000	☜ Press twice to print TOTAL

RS232 output format in HOLD MODE

Please set rnP 8 in F 5 .

If there is only RS-232, press to print out the HOLD value on the display.

Continuous Transmission rnP 9 (specific form for Brazil models)

The print out is as below:
If display shows 70.15kg, the RS-232 export is 51.07000
If display shows -70.15kg, the RS-232 export is 51.0700-
If display OL, RS-232 print nothing.

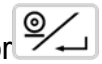
M+ or key Transmission rnP 10 (specific form)

Totalization print form

F	R	“	W	T	3	N	“	<LF>											
?	<LF>																		
G	G	,	G	G	G	<LF>													
T	T	,	T	T	T	<LF>													
PT	PT	,	PT	PT	PT	<LF>													
N	N	,	N	N	N	<LF>													
pcs	pcs	pcs	pcs	pcs	pcs	<LF>													
n	n	n	n	n	n	t	t	t	t	t	t	pcs	pcs	pcs	pcs	pcs	pcs	pcs	<LF>
p	1	,	1	<LF>															

For example:
PT 0.3KG
T 0.7KG
G 1.2KG
N 0.2KG
PCS 20

Then the printing form is:
FR”WT3N ”
?
1,200
0,700
0,300
0,200
20
000020001000000020
P1,1

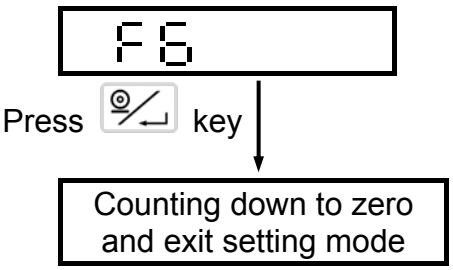
Use + key or  key twice to clear the format
Then, form of clearing the printing:

F	R	“	5				“	<LF>										
?	<LF>																	
TN	TN	TN	TN	TN	TN	<LF>												
TW	TW	TW	TW	TW	TW	<LF>												
TA	TA	TA	TA	TA	TA	<LF>												
tn	tn	tn	tn	tn	tn	<LF>												
tn	tn	tn	tn	tn	tn	tw	tw	tw	tw	tw	tw	ta	ta	ta	ta	ta	ta	<LF>
p	1	,	1	<LF>														

FR”520T ”
?
1
0,200
20
000001000200000020
P1,1

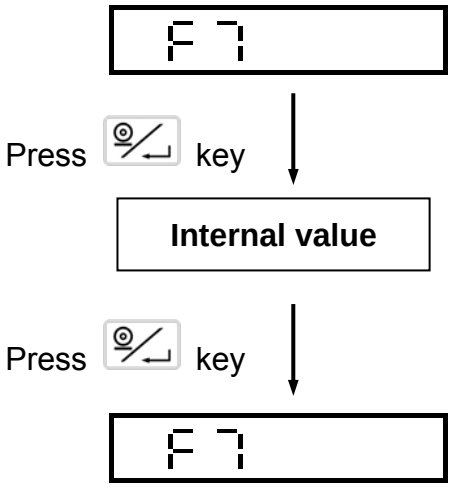
3-3 F 6 ⇒ Exit Function Setting Mode

Press or key to select F 6 function ⇒ the display shows F 6



3-4 F 7 ⇒ Internal Value Display Mode

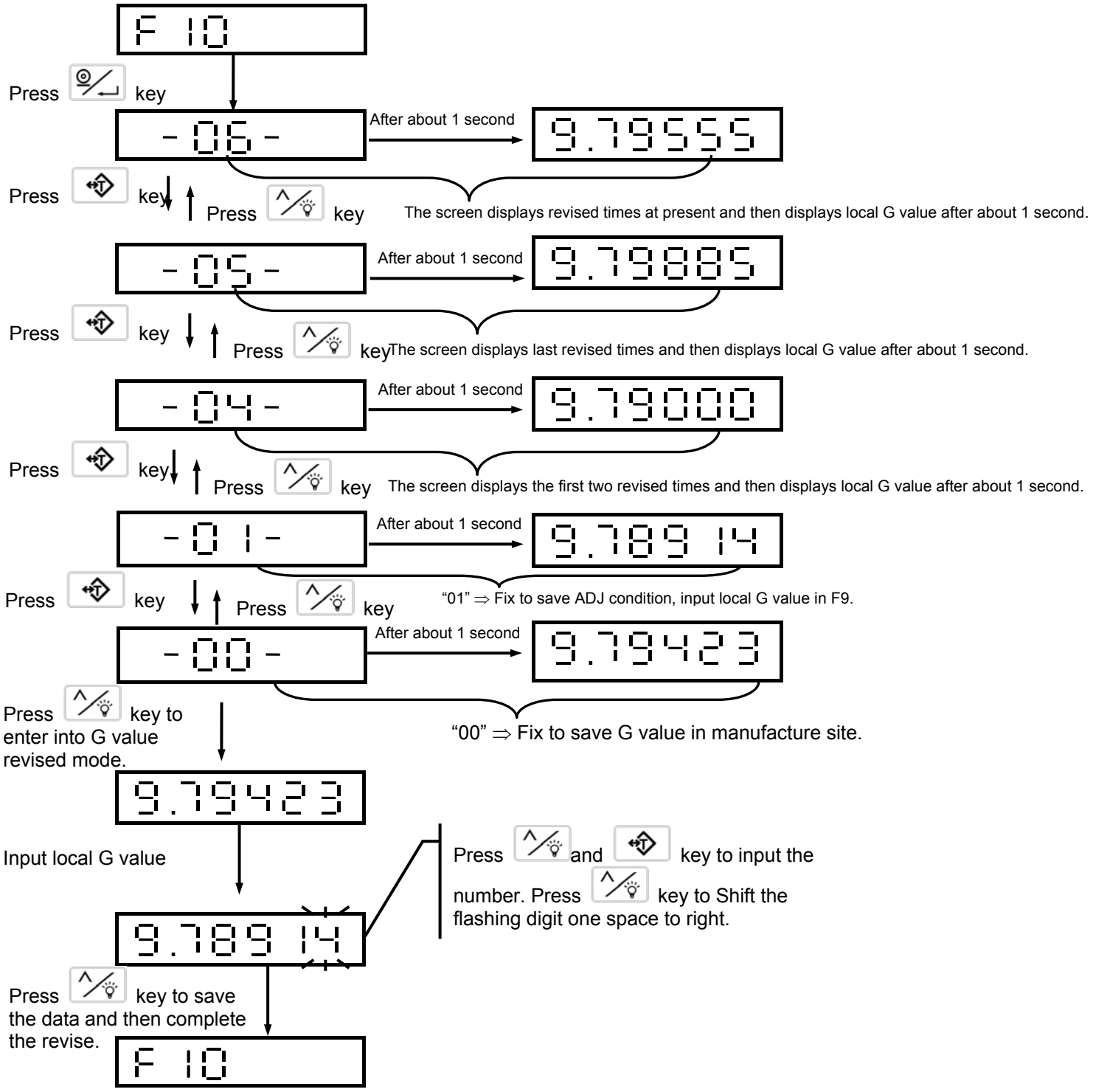
Press or key to select F 7 function ⇒ the display shows F 7



3-5 F 10 ⇒ G value Calibration

Press [^/☼] key or [→T] key to select F 10 function. ⇒ The display shows F 10.

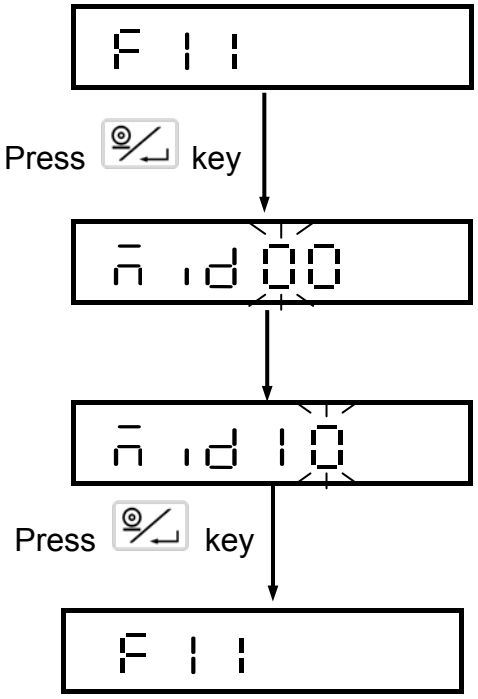
You can input at most 9 sets of G value's data. The historic data can be found out and not to be revised.


F 10
Press [⊙/↵] key
-06-
After about 1 second
9.795 55
Press [→T] key
Press [^/☼] key
The screen displays revised times at present and then displays local G value after about 1 second.
-05-
After about 1 second
9.798 85
Press [→T] key
Press [^/☼] key
The screen displays last revised times and then displays local G value after about 1 second.
-04-
After about 1 second
9.790 00
Press [→T] key
Press [^/☼] key
The screen displays the first two revised times and then displays local G value after about 1 second.
-01-
After about 1 second
9.789 14
Press [→T] key
Press [^/☼] key
"01" ⇒ Fix to save ADJ condition, input local G value in F9.
-00-
After about 1 second
9.794 23
"00" ⇒ Fix to save G value in manufacture site.
Press [^/☼] key to enter into G value revised mode.
9.794 23
Input local G value
9.789 14
Press [^/☼] and [→T] key to input the number. Press [^/☼] key to Shift the flashing digit one space to right.
Press [^/☼] key to save the data and then complete the revise.
F 10

3-6 F11 ⇒ ID Code Setting

(Use must be in coordination with F5, rnP1, 2, 8)

Press ^/☼ key or →T key to select F11 function ⇒ the display shows F11



Machine ID code setting:
Press ^/☼ and ↵ to set 01 ~ 99.
Default setting: 00

Machine ID code setting:
(1) "00": RS-232 does not transmit Machine ID.
(2) "01~99": RS-232 transmits Machine ID.

RS232 DATA FORMAT

Stable transmission (rnP1), Continuous transmission (rnP2),
Press ↵ key to transmit (rnP8)

1. e.g. Machine ID code is 10.

The gross weight (+0.876 kg) shows as below, after stable: (no tare or pre-tare mode)

1	0	S	T	,	G	S	,	+	0	0	0	.	8	7	6	k	g	0D	0A
ID		HEAD1		,	HEAD2		,	DATA								UNIT		C	LF

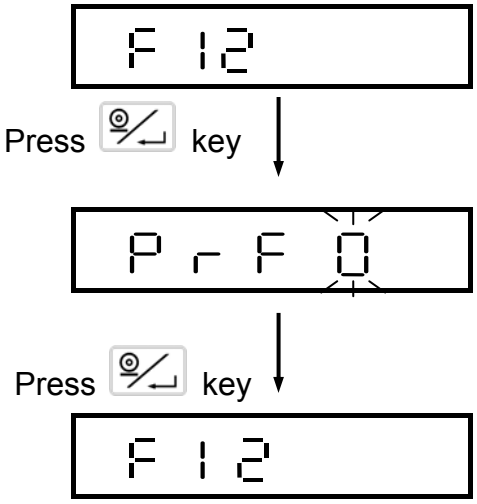
2. e.g. Machine ID code is 00. (Not using Machine ID function.)

The net weight (-1.568 lb) shows as below without weight stability: (under tare or pre-tare mode)

U	S	,	N	T	,	-	0	0	1	.	5	6	8	l	b	0D	0A
HEAD1		,	HEAD2,				DATA							UNIT		C	LF

3-7 F12 ⇒ Print Key ( ) Function Setting

Press key or key to select F12 function ⇒ the display shows F12



Press and to set 0 ~ 2.

Default setting: 0

PrF 0 ⇒ If weight variation is beyond ±1d ~ ±10d, has totalization function. Or it is print function (d=division)

PrF 1 ⇒ key has print function (no totalization function)

PrF 2 ⇒ key has print function, if current weight is within the lower and upper limits. (no totalization function)

3-8 F14 ⇒ Printing Orders when F5 is set as rnP6 or rnP7

No.0	No print.
No.1	TICKET NO.
No.2	G
No.3	T
No.4	PT
No.5	N
No.6	P/N
No.7	S/N
No.8	No print
No.9	No print

F14 Contains a 9-digit code

If F14 is set as 890000000

❶ The format of rnP6 is as following

S/N WT/UNIT (kg / lb)

- - - - - - - - - - - - - -

0001 1.0000 ☜ Press ⊙/↵ key or Press M+ key

0002 1.0000 ☜ Press ⊙/↵ key or Press M+ key

0003 1.0000 ☜ Press ⊙/↵ key or Press M+ key

0004 1.0000 ☜ Press ⊙/↵ key or Press M+ key

0005 1.0000 ☜ Press ⊙/↵ key or Press M+ key

- - - - - - - - - - - - - -

0005 5.0000 ☜ Press ⊙/↵ key twice to print the total

❷ The format of rnP7 : RS-232 print nothing

If F14 is set as 896 123 450

❶The format of rmP 6 is as following

P/N 012345678901
TICKET NO. 0001
G 75.01kg
T 0.00kg
PT 0.00kg
N 75.01kg
S/N WT/UNIT (kg / lb)
- - - - - - - - - - - - - -

0001 1.0000 ☜ Press key or Press M+ key

0002 1.0000 ☜ Press key or Press M+ key

0003 1.0000 ☜ Press key or Press M+ key

0004 1.0000 ☜ Press key or Press M+ key

0005 1.0000 ☜ Press key or Press M+ key

- - - - - - - - - - - - - -

0005 5.0000 ☜ Press key twice to print the total.

❷ The format of rmP 7 is as following

P/N 012345678901
TICKET NO. 0001
G 75.01kg
T 0.00kg
PT 0.00kg
N 75.01kg

☜ Press or M+ key

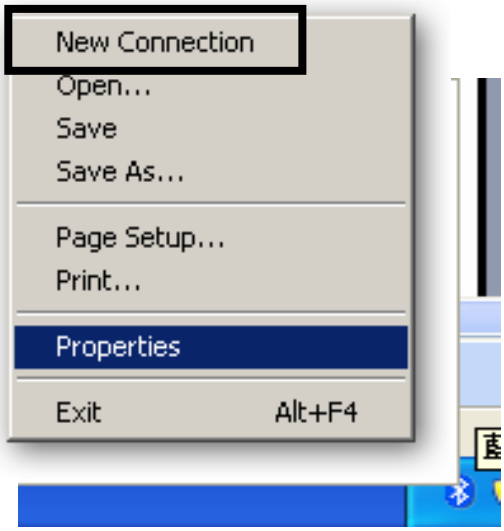
TOTAL NUMBER
OF TICKETS 0001
TOTAL
NET 0.499kg

☜ Press key twice to print the total

Chapter 4 Wireless Connection Instruction (Option)

Step 1: Connect to your device

1. Enable Wireless on your computer. Right-click on the icon of the bottom-right corner on taskbar, highlight "**New Connection**" and left click.

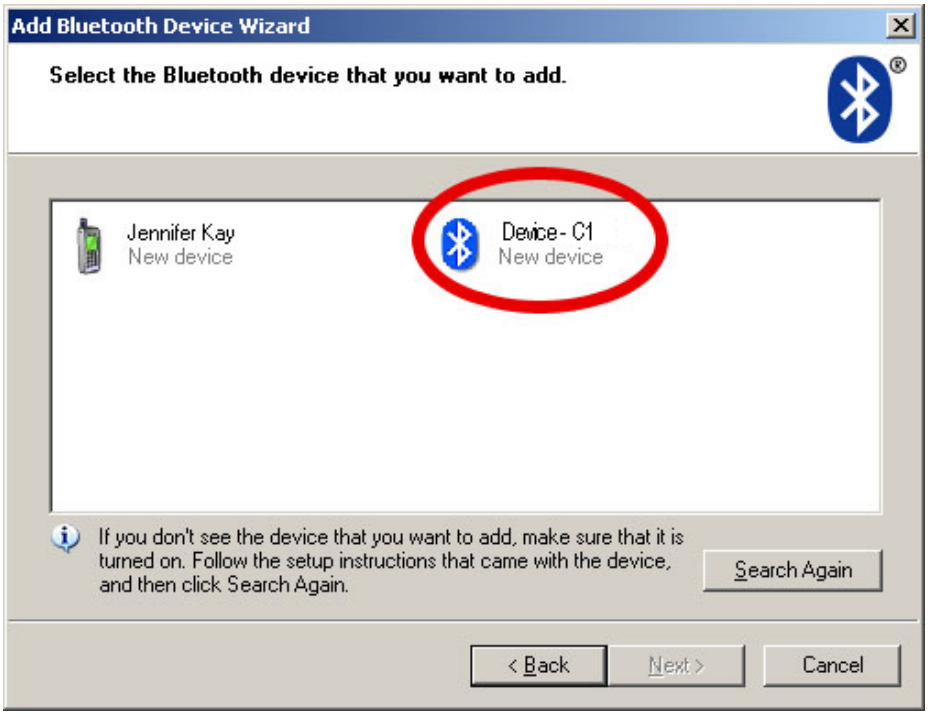


Due to the different bluetooth supplier software could be installed, the setting dialogs shown below are just for reference.

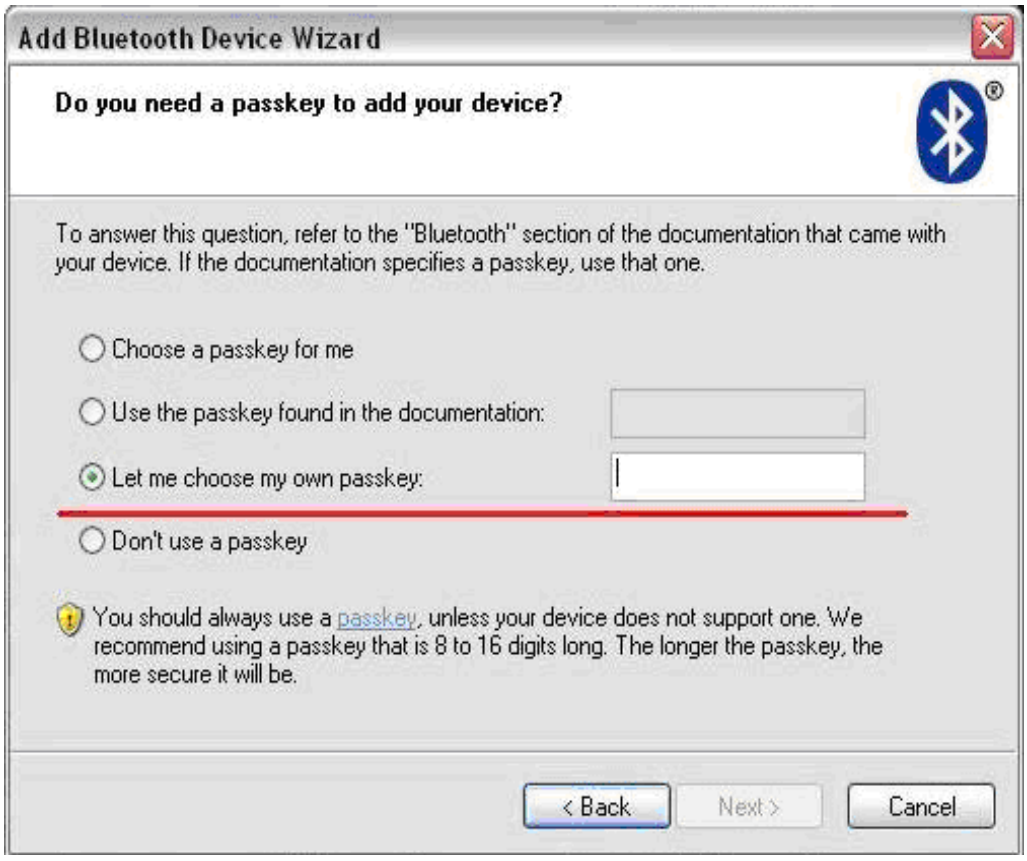
2. Check "**My device is set up and ready to be found**" in the dialogue box.

Add Bluetooth Device Wizard
Welcome to the Add Bluetooth Device Wizard
Before proceeding, refer to the "Bluetooth" section of the device documentation. Then set up your device so that your computer can find it:
- Turn it on
- Make it discoverable (visible)
- Give it a name (optional)
- Press the button on the bottom of the device (keyboards and mice only)
My device is set up and ready to be found.
Add only Bluetooth devices that you trust.
< Back
Next >
Cancel

3. If the device is ready, the device names **Device-C1 or C2** will be found. Double-click on Device-C1 or Device-C2.


Add Bluetooth Device Wizard
Select the Bluetooth device that you want to add.
Jennifer Kay
New device
Device - C1
New device
If you don't see the device that you want to add, make sure that it is turned on. Follow the setup instructions that came with the device, and then click Search Again.
Search Again
< Back
Next >
Cancel

4. Circle "**Let me choose my own passkey**", input the passkey "111111" and click "**Next >** " button

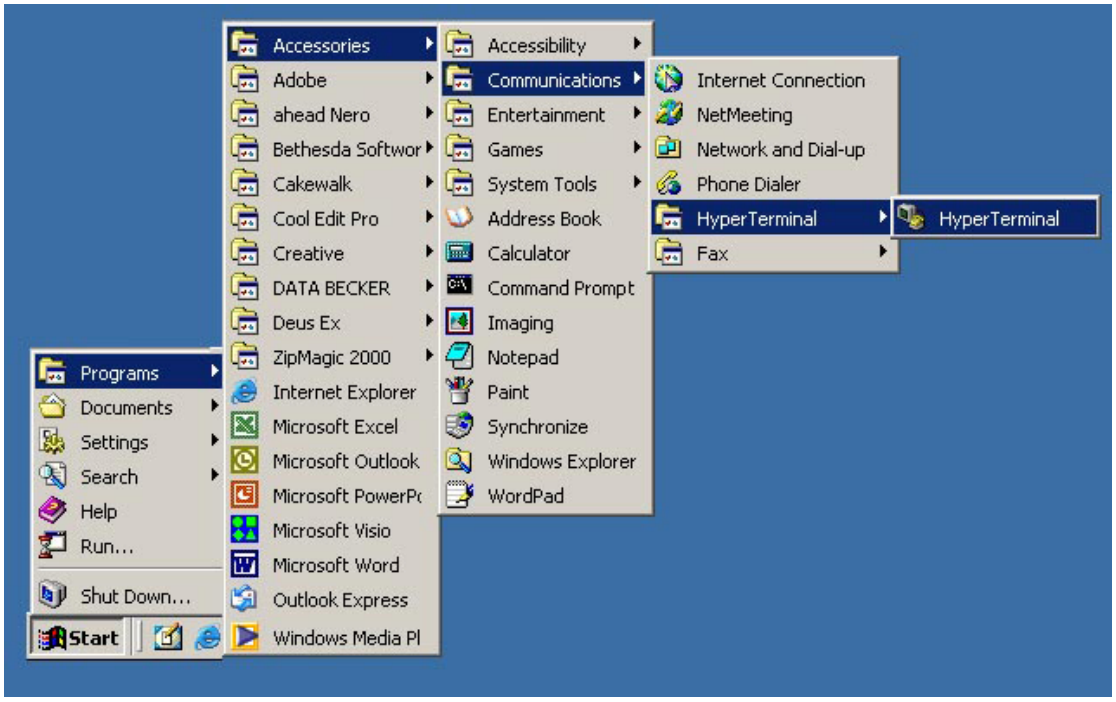

Add Bluetooth Device Wizard
Do you need a passkey to add your device?
To answer this question, refer to the "Bluetooth" section of the documentation that came with your device. If the documentation specifies a passkey, use that one.
Choose a passkey for me
Use the passkey found in the documentation:
Let me choose my own passkey:
Don't use a passkey
You should always use a passkey, unless your device does not support one. We recommend using a passkey that is 8 to 16 digits long. The longer the passkey, the more secure it will be.
< Back
Next >
Cancel

5. Device is added so far. Please disconnect COM port and click “**Finish**.”

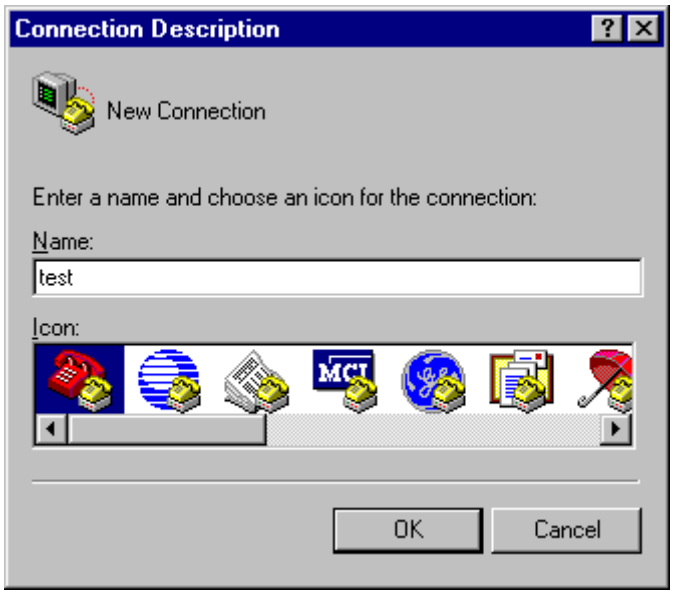
Add Bluetooth Device Wizard
Completing the Add Bluetooth Device Wizard
The Bluetooth device was successfully connected to your computer. Your computer and the device can communicate whenever they are near each other.
These are the COM (serial) ports assigned to your device.
Outgoing COM port: COM14
Incoming COM port: COM15
Learn more about Bluetooth COM ports.
To close this wizard, click Finish.
< Back
Finish
Cancel

Step 2: Connection test

To test the connection, use HyperTerminal recommended in Windows XP
1. go “START” → “All programs” → “Accessories“→ “Communications“→ “HyperTerminal”

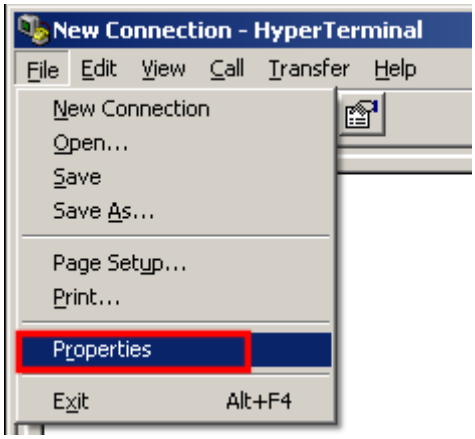


2. Key in a name and select icon, then press “**OK**.”

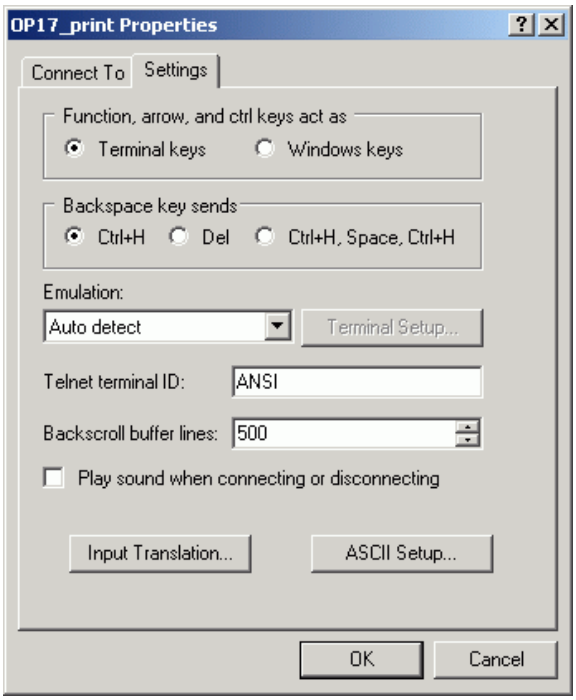


3. After select the COM port referred by step 1 point 5 and click “**OK**.”

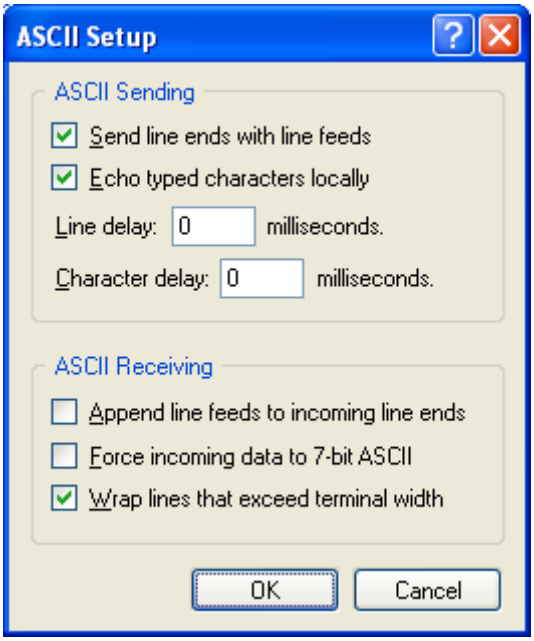
4. Click “**File**” → “**Properties**”



5. Select "**settings**" from the menu, and click "**ASCII setup**" on the bottom of the box.



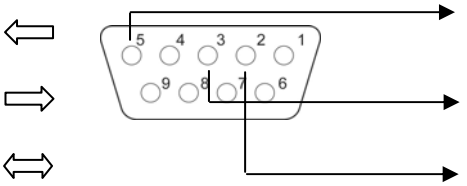
6. Check "**Send line ends with line feeds**" and "**Echo typed characters locally**" and click "**OK**".

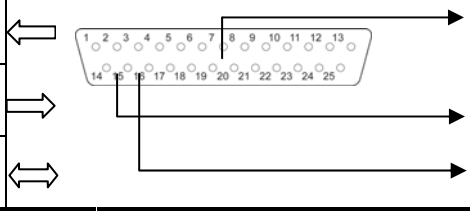


7. Key in commands such **RW**, **MZ**, and **RG** in the main screen to test...

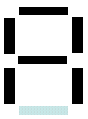
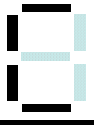
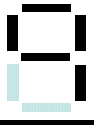
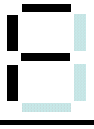
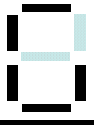
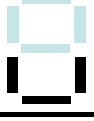
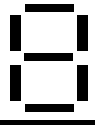
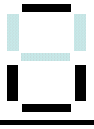
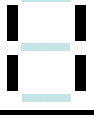
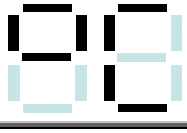
Appendix 1 RS-232 Wiring instruction

To connect RS232, please open the housing, RS232's PIN connectors locate on the bottom-right corner of the mainboard. The most common connection method is using 9PIN and 25PIN, as shown below:

PC	PIN	Function	Female 9 PINS	CN12	Function	GTW
	2	Transmit Data		5	SG	
	3	Receive Data		1	RxD	
	5	Signal Ground		2	TxD	

Printer	PIN	Function	Male 25 PINS	CN12	Function	GTW
	2	Receive Data		5	SG	
	3	Transmit Data		1	RxD	
	7	Signal Ground		3	TxD	

Appendix 2 7-Segment Display Characters

Number	Display	Letter	Display	Letter	Display
0		A		N	
1		B		O	
2		C		P	
3		D		Q	
4		E		R	
5		F		S	
6		G		T	
7		H		U	
8		I		V	
9		J		W	
		K		X	
		L		Y	
℃		M		Z	